DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-022615
Date Inspected: 22-Mar-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Mr. Sha Zhi

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Segment

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 008592

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 13BW. The weld designations reviewed are as follows:

1. SEG3014D-143, 148, 153, 158, 163, 168, 173, 178, 183, 188, 193, 198, 203, 208, 213
2. SEG3014D-144, 149, 154, 159, 164, 169, 174, 179, 184, 189, 194, 199, 204, 209, 214
3. SEG3014B-218, 214, 210, 206, 202, 198, 194, 190, 186, 182, 178, 174, 170, 165, 161, 157

Description of Incident: During the Quality Assurance Ultrasonic Testing (UT) verification of weld located on OBG Segment 13BW, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) Class “A” indication measuring approximately 20mm in length.
- The Indication rating is +8dB and length approximately 20mm.
- The nominal thickness of the plate is 25mm and depth of the indication approximately 13mm.
- The indication is located on the weld joint identified as SEG3014D-178.
- The “Y” location for this indication is approximately 140mm from top of stiffener.

- The weld is a Complete Joint Penetration (CJP) 'T' joint joining Bottom Plate I-Stiffener to Floor Beam.
- The indication is clearly marked by QA on/near the weld.
- This weld is designated as Seismic Performance Critical Member (SPCM).
- OBG Segment 13BW is located in Bay 14 West Side.
- The Notice of Witness Inspection Number (NWIT) is 008592
- The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel.
- As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld. See the attached pictures.

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint SEG3020BB-002 located on Vertical Shear Plate to Anchor Plate of OBG Segment 14W. ZPMC Welders are identified as 067609 and 066775. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3020BB-020 located on Vertical Shear Plate to Anchor Plate of OBG Segment 14W. ZPMC Welders are identified as 051348 and 045246. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3020BB-038 located on Vertical Shear Plate to Anchor Plate of OBG Segment 14W. ZPMC Welders are identified as 051348 and 045246. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-Tc-U4b-FCM-1.

Flux Core Arc Welding (FCAW) welding of weld joint SA3232B-017 located on Deck Panel Diaphragm to Deck Panel Diaphragm at panel point 124.5 of OBG Segment 13CW. ZPMC Welder is identified as 048433. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

FCAW welding of weld joint SA3232B-015 located on Deck Panel Diaphragm to Deck Panel Diaphragm at panel point 124.5 of OBG Segment 13CW. ZPMC Welder is identified as 048696. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

FCAW welding of weld joint SEG3015L-012 located on Deck Panel Diaphragm to Deck Panel Diaphragm of OBG Segment 13CW. ZPMC Welder is identified as 201583. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

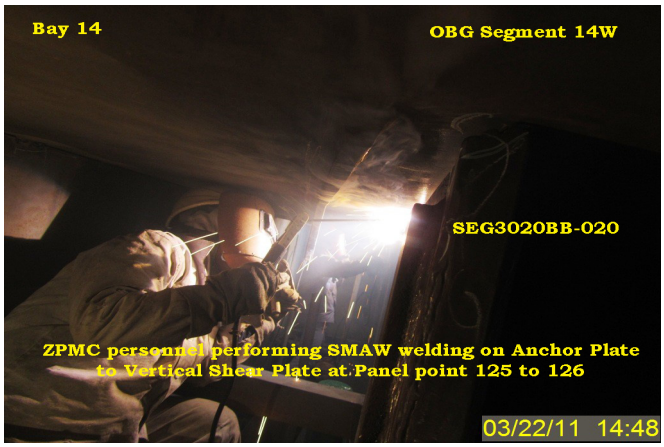
WELDING INSPECTION REPORT

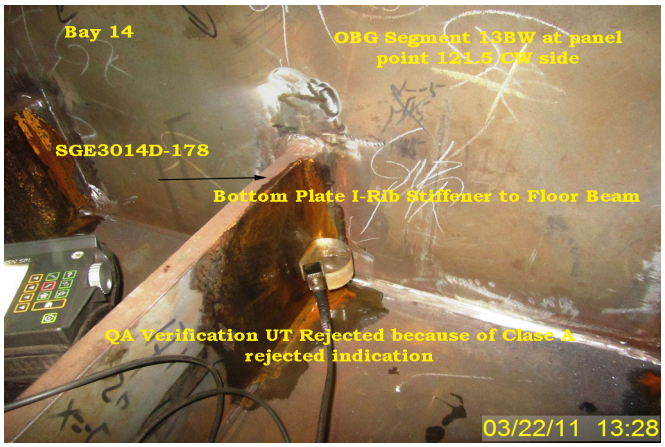
(Continued Page 3 of 3)

SMAW welding of weld joint SEG3015-004 located on Deck Panel to Deck Panel of OBG Segment 13CW. ZPMC Welder is identified as 066261. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-B-U2-FCM-1.

SMAW welding of weld joint SEG3020AQ-030 located on Anchor Plate to Anchor Plate of OBG Segment 14W. ZPMC Welder is identified as 066398. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2211-B-U2-FCM-1.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Vibin	Quality Assurance Inspector
Reviewed By:	Patel,Hiranch	QA Reviewer